REMARKS

This is in response to the Office Action mailed January 12, 2006, having a three-month shortened statutory period for reply set to expire April 12, 2006. Applicants respectfully request the reconsideration and allowance of the above-identified patent application. Please credit any overpayment or, alternatively, charge any fee deficiency to Deposit Account No. 13-2755.

Claims 1-83 are currently pending in the present application. Claims 12-20, 24-29, 31-44, 46-57, 59-72, and 74-83 have been withdrawn from consideration in accordance with an imposed restriction requirement. Claims 1-11, 21-23, 30, 45, 58, and 73 are under examination. Of the claims being examined, Claims 1, 4-5 and 7 have been amended in efforts to advance prosecution on the merits. The amendments were made in order to adopt suggestions made within the Office Action and to further amend claim 1 in similar format. Support for the amendments to claim 1 can be found, *inter* alia, within the description spanning page 3 (line 28)-page 4 (line 19), page 8, lines 6-17, and throughout the specification. No new matter has been added.

Applicants respectfully request reconsideration of the application in view of the foregoing amendments and the following remarks.

REJECTION UNDER 35 U.S.C. §112, Second Paragraph

Claims 1-11 and 21-23 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for allegedly failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Applicants respectfully traverse and set forth the specifics as follows:

Claim 1 is stated to be indefinite for the recitation of the language "wherein the E4 region or portion thereof inserted into the adenovirus is native to a virus of the same adenovirus serotype as the E1 gene product," which language it is stated does not clearly set forth that the E1 gene and the E4 region are of the same serotype. The following alternative language was suggested: "wherein the E4 region or portion thereof is of the same adenovirus serotype as the E1 gene product." Applicants have amended claim 1 to remove the objected-to language and replace it with the suggested language. Accordingly, Applicants respectfully request the reconsideration of the present rejection.

Claim 7 is stated to be indefinite for the recitation of the language "the subgroup C adenovirus" with no antecedent basis. Claim 7 has been amended to depend from claim 6 which possesses the proper antecedent basis. Accordingly, Applicants respectfully request the reconsideration of the present rejection.

Claims 4 and 5 are stated to be indefinite for lacking antecedent basis for "the replication-defective virus". Replacement of the offending language with "the replication-defective *adenovirus*" was suggested. Applicants have amended claims 4 and 5 appropriately and, thus, respectfully request reconsideration of the rejection.

Based on the foregoing, Applicants respectfully request the reconsideration and withdrawal of the rejections under 35 U.S.C. §112, second paragraph.

REJECTION UNDER 35 U.S.C. §102(b)

Claims 1-7, 10 and 21 are rejected under 35 U.S.C. §102(b) as being anticipated by Ji *et al.*, 1999 *Gene Therapy* 6:393-402 (hereinafter "Ji *et al.*"). Ji. *et al.*, allegedly teach a method for propagating recombinant adenovirus in an E1-complementing cell line wherein the adenovirus comprises deletions in E1, E3 and E4, and a heterologous promoter operatively connected to the E4 region. Based on this, the disclosure of Ji *et al.* was stated to anticipate the subject matter of claims 1-7, 10 and 21. Applicants respectfully traverse.

Applicants claim a method for propagating adenovirus in an E1-complementing cell line, whereby the adenovirus being propagated contains a heterologous E4 region or portion thereof (comprising ORF6), said E4 region or portion thereof which is of the same serotype as that of the E1 of the complementing cell line. The claims also specifically state that the E1 of the cell line is non-native to (or, alternatively stated, not of the same serotype as) the adenovirus being propagated.

The vectors of Ji *et al.* do not possess a heterologous E4. A different E4 region or portion thereof comprising ORF6 of different origin was not inserted into the vector. Rather, the Ad5 E4 was silenced by replacing the E4 promoter with a synthetic promoter.

The adenovirus is, furthermore, not grown in a complementing cell line expressing an E1 of distinct serotype from the adenovirus being propagated therein. The Ad5 serotype vectors of Ji *et al.* are grown in 293 cells which are cells expressing E1 derived form Ad5.

Applicants respectfully submit, therefore, that no valid anticipation can be found. Ji *et al.* fail to disclose all of the elements of the rejected claims, as required for proper anticipation in accordance with 35 U.S.C. §102.

Accordingly, Applicants respectfully request the reconsideration and withdrawal of the instant rejection.

REJECTION UNDER 35 U.S.C. §102(e)

Claims 1-7 and 10 are rejected under 35 U.S.C. §102(e) as being anticipated by Mehtali *et al.*, U.S. Patent No. 6,475,480 (hereinafter "Mehtali *et al.*"). Mehtali. *et al.*, allegedly teach a method for propagating recombinant adenovirus in an E1-complementing cell line wherein a heterologous E4 region is inserted into an E1-deficient serotype 5 adenovirus and introducing the replication-defective adenovirus into an E1-complementing cell line. Based on this, the disclosure of Mehtali *et al.* was stated to anticipate the subject matter of claims 1-7 and 10. Applicants respectfully traverse.

Claims 1-7 and 10 refer to a method for propagating adenovirus in an E1-complementing cell line, whereby the adenovirus being propagated contains a heterologous E4 region or portion thereof (comprising ORF6), said E4 region or portion thereof which is of the same serotype as that of the E1 of the complementing cell line. The claims also specifically state that the E1 of the cell line is non-native to the serotype of the adenovirus being propagated.

The vectors of Mehtali *et al.* do not possess a heterologous E4. A different E4 region or portion thereof comprising ORF6 of different origin was not inserted into the vector, *see, e.g.,* col. 3, 4th line, reference to "retained E4 sequences".

The adenovirus is, furthermore, not grown in a complementing cell line expressing an E1 of distinct serotype from the adenovirus being propagated therein. The Ad5 serotype vectors of Mehtali *et al.* are grown in 293 cells which are cells expressing E1 derived form Ad5.

Applicants respectfully submit, therefore, that no valid anticipation can be found. Mehtali *et al.* fail to disclose all of the elements of the rejected claims, as required for proper anticipation in accordance with 35 U.S.C. §102.

Accordingly, Applicants respectfully request the reconsideration and withdrawal of the instant rejection.

REJECTION UNDER 35 U.S.C. §103(a)

Claims 21-23 are rejected under 35 U.S.C. §103(a) as unpatentable over Mehtali *et al.* in view of Inglis *et al.*, U.S. Patent No. 5,665,362 (hereinafter, "Inglis *et al.*"). The disclosure of Inglis *et al.* is said to provide to Mehtali a specific disclosure with regard to

producing a replication-defective adenovirus comprising a nucleotide encoding an HIV-1 gag antigen. Applicants respectfully traverse.

Applicants submit that the teachings either alone or in combination do not render the present invention obvious. The claims at issue speak to a method for propagating adenovirus in an E1-complementing cell line, whereby the adenovirus being propagated contains a heterologous E4 region or portion thereof (comprising ORF6), said E4 region or portion thereof being of the same serotype as that of the E1 of the complementing cell line. The claims at issue, furthermore, state that the E1 of the cell line is not native to the serotype of the adenovirus being propagated. Neither of these elements is taught nor suggested in either cited reference. The vectors of Mehtali *et al.* do not have a heterologous E4, nor are the vectors grown in a complementing cell line expressing an E1 of distinct serotype from the adenovirus being propagated therein. These significant deficiencies are, furthermore, not cured by the disclosure of Inglis *et al.* which merely cites adenovirus in a laundry list of vectors to attempt to utilize for gene delivery and expression.

In sum, Applicants submit that the combination of references fall short of forming an appropriate §103 rejection.

Accordingly, Applicants respectfully request the reconsideration and withdrawal of the present rejection.